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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,898	03/12/2004	Rick Huffman	2503343-991100	8313
29585	7590	09/09/2005	EXAMINER	
DLA PIPER RUDNICK GRAY CARY US LLP 153 TOWNSEND STREET SUITE 800 SAN FRANCISCO, CA 94107-1907			GREENE, DANIEL LAWSON	
			ART UNIT	PAPER NUMBER
			3663	

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/799,898	Applicant(s) HUFFMAN, RICK	
	Examiner Daniel L. Greene Jr.	Art Unit 3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-78 is/are pending in the application.  
     4a) Of the above claim(s) 25-33, 45, 46 and 52-78 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24, 34-44 and 47-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/4/05, 3/7/05, 6/17/04</u> | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election without traverse of invention I, species A, AA, AAA, AAAA, BBBB, and BBBB in the reply filed on 6/22/2005 is acknowledged.

Claims 25-33, 45, 46, and 52-78 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6/22/2005.

### *Drawings*

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the:

- A. propellant mechanism comprising a pressurized propellant container as set forth in, for example, claims 13, 20 and 47,
- B. regulator hole comprising an adjustable valve, as set forth in, for example, claims 15, 22, and 49, and
- C. regulator hole comprising a device to open or close as set forth in, for example, claims 16, 23 and 50

**must be shown or the feature(s) canceled from the claim(s).** No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended

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replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because, for example,

A. reference character "28" has been used to designate the narrow cylindrical portion in figure 1D, a "cog" channel in figure 2B and a cavity in figures 3B and 5A.

B. reference character "32" has been used to designate a channel on page 13, second paragraph and a second insert portion on page 14, 1<sup>st</sup> line.

4. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

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prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).

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- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

**It is noted the section headings of the instant specification do not match those above.**

5. The disclosure is objected to because of the following informalities:

- A. Page 1, section 2, 4<sup>th</sup> line the word "restrict" should be "strict",
- B. Page 8, description of Figure 5b, Item 4a should be 5a,
- C. Page 8, description of Figure 6c, Item 5a should be 6a,

Appropriate correction is required.

6. **The following is a quotation of the first paragraph of 35 U.S.C. 112:**

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. **The specification is objected to under 35 U.S.C. 112, first paragraph, as failing to provide an adequate written description of the invention and as failing to adequately teach how to make and/or use the invention, i.e. failing to provide an enabling disclosure.**

- A. There is no adequate description or enabling disclosure of how and in what manner the piston sleeve cogs are designed to sheer off if the propellant overcharges the cartridge as set forth in, for example, page 6 lines 3+. There is no teaching as to how such a design would be incorporated or reduced to practice including, for example, dimensions of cogs relative to cartridge size,

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material of cog construction, at what pressure they shear, how they shear, etc., hence the disclosure is insufficient and non-enabling.

B. There is no adequate description or enabling disclosure of how and in what manner cavity (10) may be further or alternatively configured for coupling with another propellant mechanism such as pressurized gas or other fluid container or a port extending therefrom as set forth in, for example, page 11 second paragraph, hence the disclosure is insufficient and non-enabling.

### ***Claim Objections***

8. Claims 8, 37, 40, are 44 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Each claim modifies either a firearm or a projectile, neither of which are the matter of subject of the previous claims, i.e. a CARTRIDGE.

9. Claim 1 is objected to because of the following informalities: it contains two sub-section (c) sections. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**11. Claims 1-17 and 36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention for the reasons set forth in section 7A above.**

**12. Claims 1-17 and 36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention for the reasons set forth in section 7A above.**

**13. Claims 1-24, 34-44 and 47-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

- a. Claims 1 and 36 are vague, indefinite and incomplete in what all is meant by and encompassed by the phrase "sheering action of the cogs", hence the metes and bounds of the claim are undefined. See the discussion of this topic in section 7A above.



- b. Claims 13, 20 and 47 are vague, indefinite and incomplete in what all is meant by and encompassed by the phrase "a pressurized propellant container", hence the metes and bounds of the claim are undefined.
- c. Claims 15, 22, and 49 are vague, indefinite and incomplete in what all is meant by and encompassed by the phrase "an adjustable valve", hence the metes and bounds of the claim are undefined.
- d. Claims 16, 23 and 50 are vague, indefinite and incomplete in what all is meant by and encompassed by the phrase "a device to open or close", hence the metes and bounds of the claim are undefined.
- e. Claims 14, 21 and 48 are vague, indefinite and incomplete in what all is meant by and encompassed by the phrase "a regulator hole being further defined between the primary case and bullet cavities of selected size for regulating a velocity..." (underlining added). The limitation "of selected size" can be understood to refer back to the bullet cavity, the primary case and the regulator hole, hence the metes and bounds of the claim are undefined since it is unclear exactly what the limitation "of selected size" is referring to.
- f. Claims 18 and 34 are vague, indefinite and incomplete in what all is meant by and encompassed by the limitation "sub-lethal", hence the metes and bounds of the claim are undefined.
- g. Claims 1, 4, 7, 8, 17, 18, 24, 34-37, 40 and 51 are indefinite because they claim both an apparatus (a cartridge, sleeve, case, cogs, etc.) and the method steps of using the apparatus, for example, overcharging is prevented by the

sheering action of the cogs a shoulder of the piston sleeve contacts the step preventing the sleeve from advancing down the barrel, the channels slidably couple with the complementary cogs, etc. See MPEP 2173.05(p)

h. There is no proper antecedent basis for all terms present. See for example "the second end", "protrusion portions", propellant mechanism" in claim 1, "said channel" in claims 9 and 10, etc.

i. Claims 18 and 34 are vague, indefinite and incomplete in what all is meant by and encompassed by the phrase "sub-lethal", hence the metes and bounds of the claim are undefined.

#### ***Claim Rejections - 35 USC § 101***

14. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

15. **Claims 1, 4, 7, 8, 17, 18, 24, 34-37, 40 and 51 are rejected under 35 U.S.C.**

**101 because the claimed invention is directed to non-statutory subject matter.**

**These claims are directed towards neither an "apparatus" nor a "process" but to both, which overlaps two different statutory classes of invention. See MPEP 2173.05(p)**

#### ***Claim Rejections - 35 USC § 102***

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**17. Claims 1, 8-24, 34-44 and 47-51 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,095,051 to Saxby.**

Saxby discloses a two-piece, two stage, reduced energy mechanically-operating cartridge for launching a projectile from a dedicated or modified firearm, comprising:

(a) a piston sleeve (44) comprising a piston sleeve jacket defining a projectile cavity (36) at a first longitudinal end for coupling the projectile (42) therein, and the second end for coupling with a primary case, and the piston sleeve (44) including one or more protrusion portions (34) (hereinafter "cogs"); and

(b) the primary case (50) comprising a primary case jacket for being axially coupled with the second end of the piston sleeve, and including one or more complementary cogs (52) to those of the piston sleeve, and defining a primary case cavity for coupling with a propellant mechanism (56), and

(c) wherein an axial coupling of the primary case with the second end of the piston sleeve involves the respective cogs of the primary case and piston sleeve must be at least initially offset, otherwise they would not have clearance to pass each other during assembly, and

(c) wherein upon the axial coupling of the piston sleeve and primary case and at least partial compression together, the primary case and the piston sleeve

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become relatively rotationally movable to angularly overlap their respective cogs, the angular overlap being present when the sleeve and primary case are set into an at least partially compressed position, such that upon activation, when the piston sleeve and primary case telescope from the static position, the respective cogs meet at a particular longitudinal extent of the cartridge, and

(d) wherein if propellant is manipulated creating an overcharging then piston sleeve will separate from primary case via a sheering action of the cogs releasing excessive energy preventing projectile of traveling at excessive velocity, wherein it is understood that Saxby is inherently capable of the intended uses claimed.

As to limitations which are considered to be inherent in a reference, note the case law In re Ludtke, 169 USPQ 563, In re Swinehart, 169 USPQ 226, In re Fitzgerald, 205 USPQ 594, In re Best et al, 195 USPQ 430, and In re Brown, 173 USPQ 685,688.

Please note that statements as to possible future acts or to what may happen in a method or operation, are essentially method limitations or statements of intended or desired use and do not serve to patentably distinguish the claimed structure over that of the references. See In Re Pearson, 181 USPQ 641; In re Yanush, 177 USPQ 705; In re Finsterwalder, 168 USPQ 530; In re Casey, 152 USPQ 235; In re Otto, 136 USPQ 458; Ex parte Masham, 2 USPQ 2<sup>nd</sup> 1647.

See MPEP 2114 which states:

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A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ 2<sup>nd</sup> 1647.

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. In re Danly, 120 USPQ 528, 531.

Apparatus claims cover what a device is, not what a device does. Hewlett-Packard Co. v. Bausch & Lomb Inc., 15 USPQ 2<sup>nd</sup> 1525, 1528

**As set forth in MPEP 2115, a recitation in a claim to the material or article worked upon, does not serve to limit an apparatus claim.**

Claims 8, 37 and 40 are further disclosed in, for example, figure 2A.

Claims 9, 10, 19, 38, 39, 41, 42 are further disclosed in, for example, figure 2A wherein the piston sleeve and the primary case include an annular protrusion (54) and (46), in addition to said cogs and said channels for axially stabilizing the coupling of the piston sleeve and the primary case in the static position.

Claims 11 and 12 are inherently disclosed in, for example, column 6 lines 37-45 wherein it is understood that in order to prevent bending of the piston, the case and sleeve must be made of substantially non-deformable material in order to not deform during normal use.

Claims 13, 20 and 47 are clearly disclosed in, for example, Figure 2A, item (56).

Claims 14, 21 and 48 are further disclosed in, for example, column 2 lines 2-4.

Claims 15, 16, 22, 23, 49 and 50 are further disclosed in, for example, column 3 lines 2-5.

Claims 17, 24 and 51 are clearly disclosed in, for example figures 2-4.

Claims 18 and 34-36 are disclosed in the rejection of corresponding parts above wherein it is understood that the claimed limitation "channels" reads on, for example, that area on the inside of sleeve (44) between flange (34) and reward surface (46) and the respective mating surface of piston (50). It must also be noted that Saxby is inherently capable if the intended uses listed in the claims and that the previous explanations of intended use and inherency apply here as there.

Claim 43 is clearly disclosed in, for example, Figures 2A-4.

Claim 44 is clearly disclosed in, for example, Figures 2A and 2B.

### ***Claim Rejections - 35 USC § 103***

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**19. Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,095,051 to Saxby as applied to claims 1, 8-24, 34-44 and 47-51 above, and further in view of U.S. Patent 6,845,716 to Hussein et al.**

Saxby discloses applicant's invention as explained above.

Hussein, column 6, lines 23-33, teaches that it is well known in the ammunition art to attach separate components of ammunition, i.e. bases, casing bodies, etc. with any number of suitable methods including, mechanical

interconnecting structures, tongue and groove, flanges or pins and grooves, detent and detent receiving recesses, screw threads, etc. Obviously "cogs" and channels are incorporated in the definition of mechanical interconnecting structures.

If applicant is of the opinion that the flanges of Saxby do not read on the terms "cog" then it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the use of cogs and channels instead of flanges as taught by Hussein to be no more than the use of well known equivalent methods of mechanically interconnecting parts of ammunition cartridges.

Regarding claims 2-7, it would have been obvious at the time of the invention to utilize any number of cogs and channels as means of mechanically interconnecting the piston sleeve and primary case, as such is no more than a duplication of parts, i.e. cogs or interconnecting structure. Please note, that Saxby clearly discloses that the mechanical interconnecting structures slidably couple with one another in what is considered channels.

**Note that MPEP 2144 states that a making separable, rearrangement of parts, duplication of parts and/or changing the shape does not make an invention patentably distinct. See *In re Dulberg*, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961), *In re Japikse*, 181 F.2d 1019 86 USPQ 70 (CCPA 1950) and *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975), *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960), *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966)**

***Conclusion***

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as teaching the current state of the art of reduced energy training cartridges.

21. Examiner's Note: Examiner has cited particular columns and line numbers in the references as applied to the claims for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

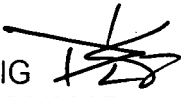
22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel L. Greene Jr. whose telephone number is (571) 272-6876. The examiner can normally be reached on Mon-Fri 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on (571) 272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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23. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DIG   
8/30/2005

  
JACK KEITH  
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SPE 3663